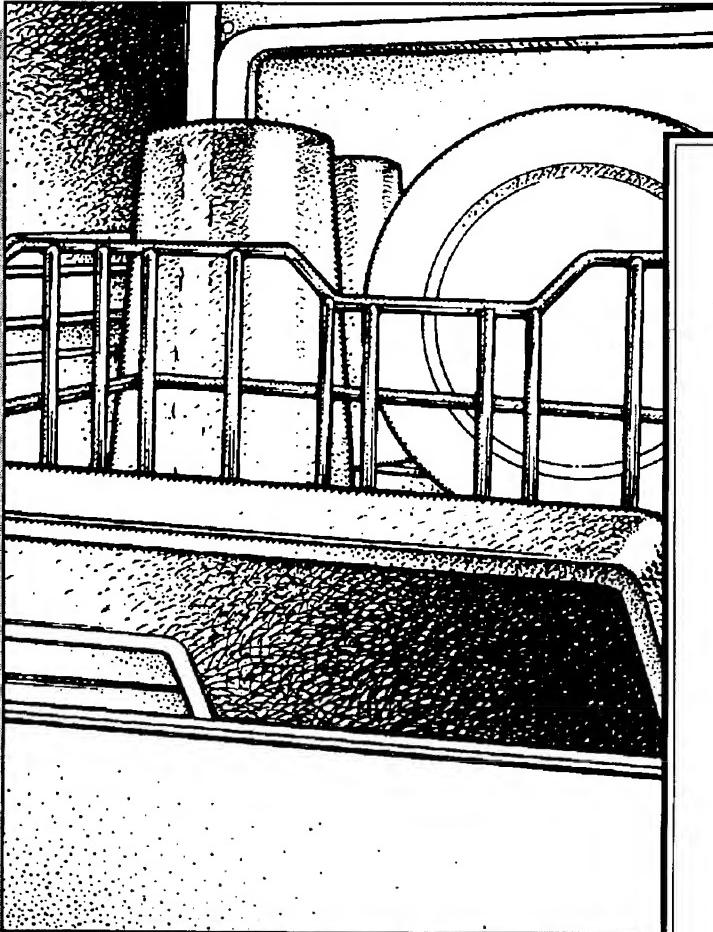


KitchenAid®



KitchenAid®

Undercounter Dishwasher

Models KUDS230Y KUDA230Y
KUDS23HY KUDA23HY

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Call Us With Questions
Or Comments:

1-800-422-1230

Use and Care Guide

A Note To You

Thank you for buying a KitchenAid home appliance.

You have purchased a quality, world-class home appliance. Years of engineering experience have gone into its manufacturing. To ensure that you will enjoy many years of trouble-free operation, we have developed this Use and Care Guide. It is full of valuable information on how to operate and maintain your home appliance properly and safely. Please read it carefully. Also, please complete and mail the Ownership Registration Card provided with your home appliance.

Your safety is important to us.

This guide contains safety symbols and statements. Please pay special attention to these symbols and follow any instructions given. Here is a brief explanation of the use of each symbol.

WARNING

This symbol will help alert you to such dangers as personal injury, burns, fire and electrical shock.

CAUTION

This symbol will help you avoid actions which could cause product damage (scratches, dents, etc.) and damage to your personal property.

Our Consumer Assistance Center telephone number, 1-800-422-1230, is toll-free, 24 hours a day.

If you ever have a question concerning your home appliance's operation, or if you need service, feel free to call our toll-free Consumer Assistance Center telephone number for help. When calling, you will need to know your appliance's complete model number and serial number. You can find this information on the model and serial number label (see diagram on page 4). For your convenience, we have included a handy place below for you to record these numbers. Also, please record the date the product was purchased/installed and the Builder's or Dealer's name, address and phone number. You will need this information if you ever require service. Keep this book and the sales slip together in a safe place for future reference.

IMPORTANT: You must provide proof of purchase or installation date for in-warranty service.

Model Number _____

Builder/Dealer Name _____

Serial Number _____

Address _____

Date Purchased _____

Phone _____

Date Installed _____

Don't forget, KitchenAid offers a full line of quality home appliances.

Built-in Refrigerators

Trash Compactors

Ranges & Cooktops

Freestanding Refrigerators

Hot Water Dispensers

Microwave Ovens

50-Pound Ice Makers

Food Waste Disposers

Washers & Dryers

Dishwashers

Built-In Ovens

Mixers

For more information on these appliances, or the one you have purchased, call our toll-free Consumer Assistance Center telephone number, 1-800-422-1230.

Important Safety Instructions

WARNING

To reduce the risk of fire, electrical shock, or injury when using your dishwasher, follow basic precautions including the following:

- Read all instructions before using the dishwasher.
- Use your dishwasher only for the uses described in this manual.
- **DISHWASHER MUST BE ELECTRICALLY GROUNDED.** Read the Installation Instructions for details.
- When discarding an old dishwasher, always remove the door to prevent accidental entrapment or suffocation.
- Use ONLY detergents and rinse agents recommended for use in a dishwasher.
- Store dishwasher detergent in a cool, dry place **WHERE CHILDREN CAN'T REACH IT.**
- When loading items to be washed:
 - Load sharp items and knives with the handles up to reduce risk of cut-type injuries.
 - Locate sharp items and knives so that they are not likely to damage the door seal.
- DO NOT let children play in or on the dishwasher.
- DO NOT reach into the area below the bottom rack until the heating element has cooled for at least 20 minutes.
- DO NOT wash plastic items unless marked "Dishwasher Safe" or the equivalent. If not marked, check manufacturer's recommendations.
- DO NOT use your dishwasher unless all enclosure panels are properly in place.
- DO NOT sit on, stand on or abuse the dishwasher door or dish racks.
- DO NOT tamper with controls.
- If hot water has not been used recently (usually two weeks or longer), hydrogen gases may build up in the water heater and the hot water pipes. **HYDROGEN GAS IS EXPLOSIVE.** To prevent injury or damage, before using your dishwasher, turn on all hot water faucets and allow water to run for several minutes. This will allow gases to escape. Do not smoke or use any open flame near the faucet while it is open.
- DO NOT store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance. The fumes can create a fire hazard or explosion.
- Disconnect electrical power to the dishwasher before attempting to service.

– SAVE THESE INSTRUCTIONS –

Help us help you

Please:

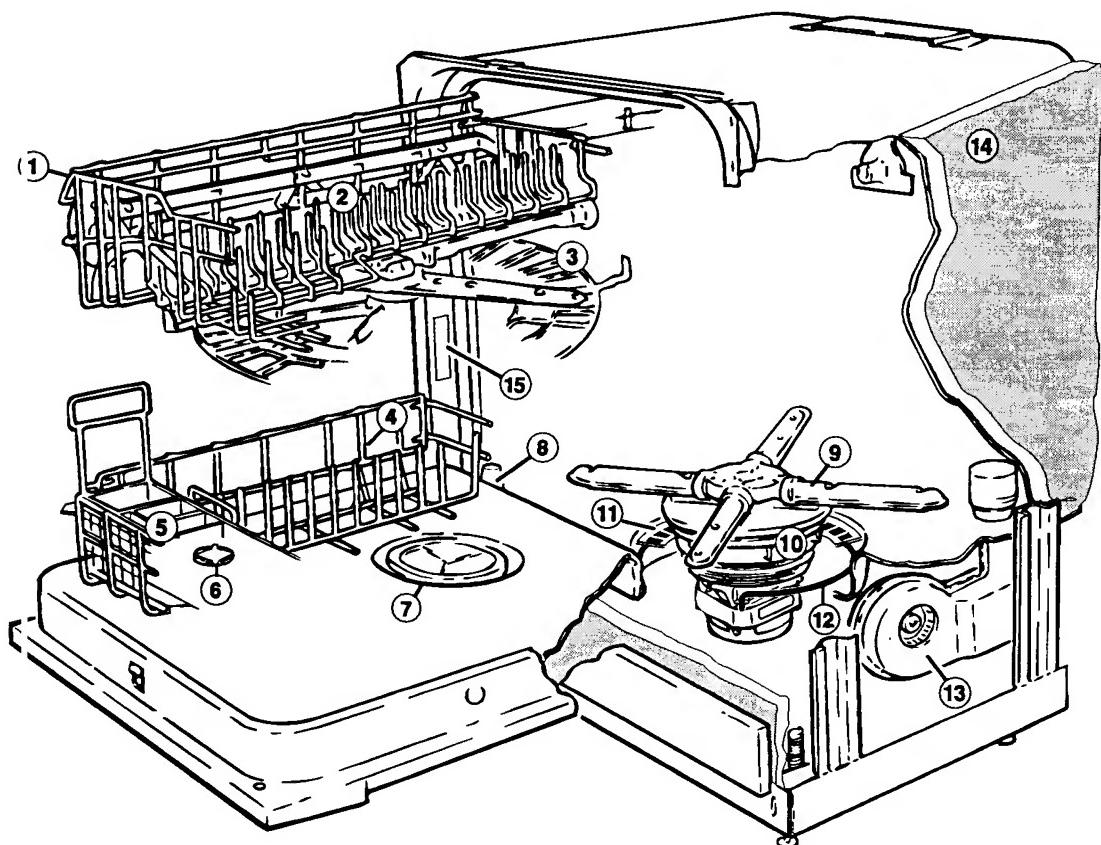
- Have your dishwasher installed by a qualified installer.
- Install where dishwasher is protected from the elements. Protect against possible rupture of fill valve by freezing. Such ruptures are not covered by the warranty. See winter storage information on page 19.
- Install and level dishwasher on a floor that will hold the weight, and in an area suitable for its size and use.
- Properly connect dishwasher to electricity, water and drain.*
- Remove all shipping plugs from hoses and connectors (such as drain connector on a disposer) before installing.*
- Use heavy-duty door springs when installing heavy custom door panels. See page 22.*
- Remove all hang tags and temporary labels.
- Make sure dishwasher is not used by anyone unable to operate it properly.
- Properly maintain dishwasher. See page 18.

*See Installation Instructions for complete information.

Parts And Features

This section contains captioned illustrations of your appliance. Use them to become familiar with the location and appearance of all parts and features.

Your KitchenAid dishwasher is equipped with a unique sound reduction system. The Whisper Quiet™ System is a triple layer of high density insulation designed to reduce many common sounds heard while a dishwasher is operating.



1. 16-Position adjustable upper rack with Durakote™ nylon
2. Stay-put Flex-O-Dividers™
3. Upper level power wash with ChinaGuard™
4. Lower rack with Durakote™ nylon
5. Cutlery/silverware basket
6. Automatic rinse agent dispenser
7. Detergent dispenser
8. Overflow protection float
9. 4-Way hydro sweep wash
10. Self-Cleaning filter with jet spray
11. Coarse strainer
12. Water-heating element
13. Flo-Thru™ drying fan/heater
14. Triple layer high density insulation
15. Model and serial number label

Operating Your Dishwasher

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Operating your dishwasher properly enables you to obtain the best possible results. This section explains proper dishwasher operation.

Before starting your dishwasher

1. If this is the first time your dishwasher is being used after installation, press the CANCEL/DRAIN button to clear any factory settings.
2. Properly load the top and bottom racks, and the silverware basket. See pages 8-11.
3. Spin the upper and lower spray arms with lower rack in place to make sure nothing prevents arms from turning freely.
4. Add detergent. See page 12.
5. Check rinse agent dispenser. See page 14.
6. Firmly close door. Latch door by pushing the door handle down.
7. Run hot water at sink nearest dishwasher until water is hot. Turn off water.

Starting your dishwasher

The dishwasher will wash and dry dishware according to the selections you make on the control panel.

1. Push a button for the desired Rinse/Dry selection. See page 8 for selection descriptions.
2. Push a button for the desired Wash Selection. See page 7 for selection descriptions.

The dishwasher will automatically start the cycle.

Adding dishware during a cycle

You can add a forgotten item to the dishwasher anytime before the final wash of the cycle. See page 7.

1. Unlatch the door to stop the cycle. Wait a moment for the spray action to stop before opening the door.
2. Open the door and add the dishware.
3. Close the door.
4. Push down on the door handle to latch door.
5. Push the cycle button for the current cycle to restart dishwasher.

Changing a cycle setting

You can change a setting anytime during any cycle.

1. Push the CANCEL/DRAIN button (see page 8). Wait for the CYCLE COMPLETE light to come on.
2. Open the door.
3. Check the detergent dispenser to be sure it is properly filled for the new cycle.
4. Relatch the door.
5. Select the desired new option(s) and cycle.



Cycle monitor lights

The control panel contains several indicator lights. They allow you to monitor the operation of your dishwasher.



Heating water light

The HEATING WATER light comes on when water in the dishwasher is being heated. Neither wash nor rinse action occur while the HEATING WATER light is on. **This is normal.** When the water reaches the proper temperature, the wash or rinse action will continue.



Cycle lights

When the dishwasher is running, the WASH/RINSE and DRY lights indicate which portion of the cycle is being performed.



Cycle complete light

The CYCLE COMPLETE light comes on when the dishwasher has completed a cycle or when the dishwasher has finished cancelling a cycle. All other lights will go out. The CYCLE COMPLETE light will go out after you open the door.



Please wait light

The PLEASE WAIT light comes on while the dishwasher is draining after you have pressed the CANCEL/DRAIN button. See page 8.

PLEASE
WAIT

What happens in each cycle



Soak & Scrub Pots/Pans cycle

This cycle is used to soak, wash, and dry hard-to-clean heavily soiled pots, pans and casseroles along with regular tableware.

The cycle starts with a pre-wash, followed by two wash periods, a purge to remove soiled water, and a rinse. Cycle time is about 93 minutes* if heated drying is selected. Water usage is 9½ gallons.

Cycle sequence:

Pre-wash → Wash → Wash → Purge → Rinse → Dry → Off

Normal cycle

This cycle is used to wash and dry daily loads with moderate amounts of food soil.

There are two wash periods, a purge to remove soiled water, and a rinse. Cycle time is about 82 minutes* if heated drying is selected. Water usage is 7½ gallons.

Cycle sequence:

Wash → Wash → Purge → Rinse → Dry → Off

Light/China cycle

This cycle is used to wash and dry daily loads with light amounts of food soil.

There are two wash periods, a purge to remove soiled water, and a rinse. Cycle time is about 59 minutes* if heated drying is selected. Water usage is 7½ gallons.

Cycle sequence:

Wash → Wash → Purge → Rinse → Dry → Off

IMPORTANT: Check manufacturers' recommendations before washing china and crystal. All cycles may be used to wash and dry dishwasher-safe china and crystal.

Quick/Glass cycle

This cycle is used to rapidly wash and dry glassware, crystal and lightly soiled china.

There are two wash periods, a purge to remove soiled water, and a rinse. Cycle time is about 42 minutes* if heated drying is selected. Water usage is 7½ gallons.

Cycle sequence:

Wash → Wash → Purge → Rinse → Dry → Off

IMPORTANT: If the Energy Saver Dry option is used, total cycle time is reduced by one-half. The Sani-Rinse option cannot be used with the Quick/Glass cycle.

Rinse Hold cycle

This cycle is used to rinse partial loads of dishware until a full load is accumulated. Detergent is not used. Dishware is kept moist until a complete wash and dry cycle can be run.

The cycle provides one rinse period. Cycle time is about 6 minutes. Water usage is 2¼ gallons.

Cycle sequence:

Rinse → Off

IMPORTANT: The Energy Saver Dry and Sani-Rinse options cannot be used with the Rinse Hold cycle.

*Cycle time may be longer depending on incoming household water temperature.

What happens in each option

Sani-Rinse option

The Sani-Rinse option will raise the final rinse water temperature to 160°F (71°C). This option may be used with the Soak & Scrub, Normal and Light/China cycles. The temperature of the incoming household water will affect the cycle time (the cooler the incoming household water, the longer the water heating period).



Energy saver dry option

This option will eliminate the heat during the dry portion of a cycle. This option may be used with the Soak & Scrub, Normal, Light/China and Quick/Glass cycles.

The fan of the drying system will continue to operate, helping the dishware to air dry naturally. Under certain conditions, you may find a few drops of water on the dishware and silverware. For best drying results, use a liquid rinse agent.



The cancel/drain button

The CANCEL/DRAIN button is used to cancel any cycle in progress. The cycle will rapidly advance to the final drain. Some clicking sounds and flashing of the Cycle Monitor lights are normal while the timer advances.



The PLEASE WAIT light will come on while the water drains. The dishwasher will then automatically turn itself off. The CYCLE COMPLETE light will come on.



Loading your dishwasher

Preparation for loading

It is not necessary to rinse dishware before putting them into the dishwasher.

- Scrape leftover food, bones, toothpicks and other hard items from dishware.
- Foods like eggs, rice, pasta, and cooked cereals may be hard to remove if they are left to dry over a period of time.
- Run a Rinse Hold cycle to keep dishware moist if you do not plan to wash them soon.
- Load dishware so that soiled surfaces face the rotating wash arm.

• Be careful to separate items. Spray must reach all surfaces for best washing. Water must drain off completely for best drying.

Durakote™ nylon upper and lower racks

Your KitchenAid dishwasher is equipped with Durakote™ Nylon upper and lower racks with Cushion-Tips™ which provide extended life and better protection for your dishware. These racks have an extended five year limited warranty. See your dishwasher warranty on the back cover for details.

Top rack loading

!CAUTION

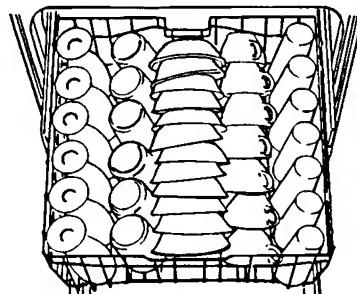
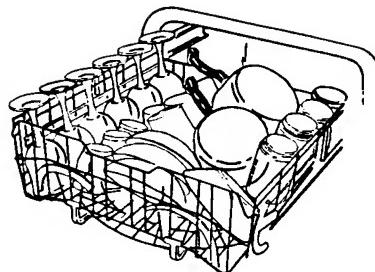
Dishware Damage Hazard

Unstable dishware items may be damaged.

Load carefully to prevent damage.

Glasses, stemware, bowls, pans, saucers and cups may be loaded together. Stability is important when loading such items. Tilt cups and mugs with concave bottom surfaces to aid drainage.

Lightweight plastics, or glassware and stemware should be locked into place using the outside row of Flex-O-Dividers™. Additional glasses, and stemware, may also be loaded in the upper rack between and over pins in a stable manner.

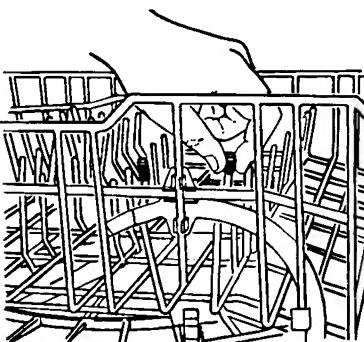


Flex-O-Dividers™

Two adjustable dividers are located on either side of the fixed center row pins. Each divider works independently of the other and may be changed to fit loading needs.

To adjust:

1. Place thumb and index fingers on pin.
2. Secure pin in selected notch. Divider may also be folded down flat.

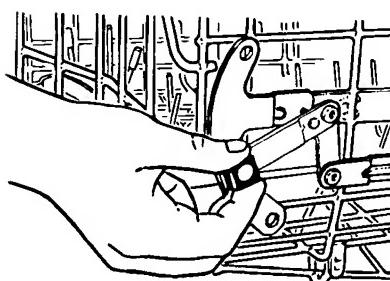


IMPORTANT: The outside row folds toward the outside of the rack, and the inside row folds toward the center pins.

Adjustable upper rack

Your KitchenAid dishwasher features a 16-position upper rack which may be easily adjusted when either empty or full.

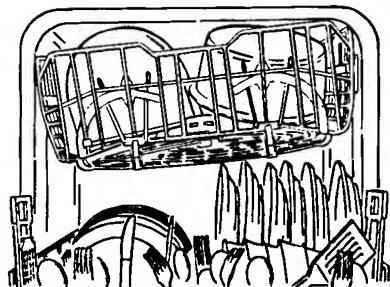
1. Pull the upper rack out so that the knobs on either side of the rack are easily reached.
2. Pull the knob on side of rack out from the retainer plate. Raise or lower the rack to desired level.
3. Place knob pin in one of the four retainer holes.



Raise the upper rack when loading platters, trays, large roasting pans and other baking utensils in the lower rack.

Lower the upper rack when loading pitchers, deep bowls, and tall stemware in the upper rack.

Either side of the rack may be raised or lowered independently of the other to accommodate extra large items in both racks.



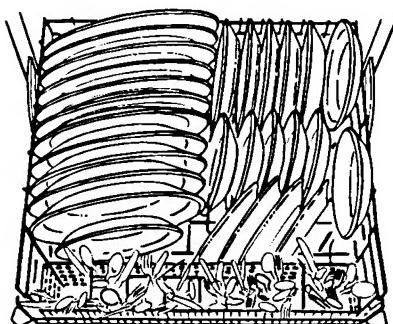
Bottom rack loading

For maximum capacity and stability of an all-plate load, overlap small plates on right side, as shown.

Cereal/soup bowls may be loaded in a variety of ways, depending upon the shape of the bowls.

Plates may be loaded front to back or side to side with pots, pans and large cookware.

Glasses may be loaded in the lower rack along with plates, bowls and saucepans.



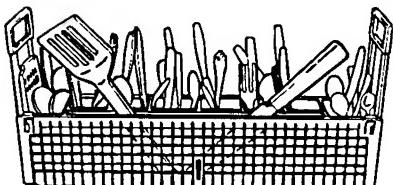
Silverware basket loading

⚠ WARNING

Personal Injury Hazard

Sharp utensils should be loaded with the point down.

Failure to do so could cause personal injury.



The silverware/cutlery basket may be removed for loading and unloading.

For best washing results:

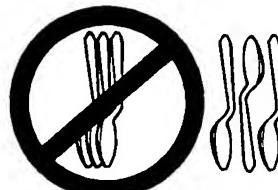
Load slim handled silverware with handles up to prevent them from sticking through the basket, possibly causing damage to the silverware or dishwasher.

Load forks and spoons with handles up and down so they do not nest together. Nesting may result in reduced washing performance.

The cutlery section in the front of the basket is for long-handled utensils and long knives.

IMPORTANT: Silver and stainless steel flatware may be damaged if washed when in contact with one another.

Silver and stainless steel flatware may also be damaged if exposed to foods containing salt, vinegar, milk products or fruit juices for long periods of time. Use the Rinse Hold cycle if flatware is not washed immediately after use.



Small items section loading

A small items section, with lid, is provided in the silverware basket. This may be used to hold small items that might be tossed around in the dishwasher by the water spray. With lid in the upright position, this section may be used for additional silverware.

An optional second lid is available from KitchenAid for the other end of the silverware basket. To order part number 4171554, contact your local KitchenAid dealer or call 1-800-422-1230.

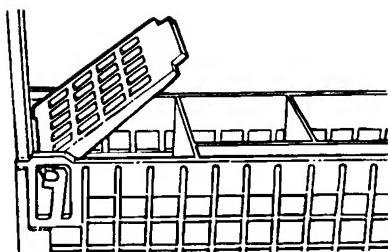
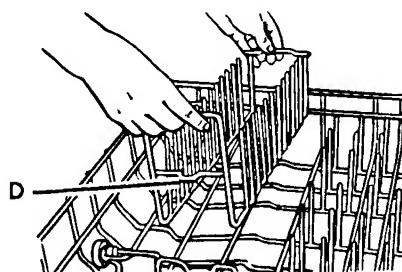
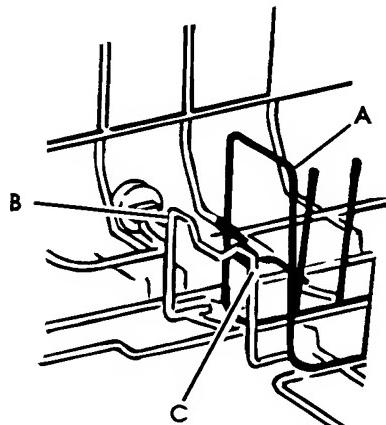


Plate lift out section

The plate lift out section provides added versatility for loading dishware. There are two positions available (B and C).



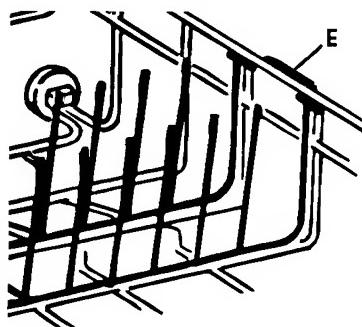
To remove:

Push back handle (A) to unhook from locking position and lift up and out.

To replace:

While holding handle, position rear of section (E) under back of top cross wire and slip detent (locking device D) into proper retainer (B or C).

IMPORTANT: By positioning plate lift out section into rack retainer (C), the silverware basket may be located along the left side (front to back) of the lower rack for additional loading flexibility.



Using the detergent dispenser

IMPORTANT: Use automatic dishwasher detergent only.

Never use soap, hand dishwashing detergent, laundry detergent or laundry enzyme products. The products will produce excessive suds which could cause flooding. Use of these products will reduce washing performance.

Different brands of dishwasher detergent have different amounts of phosphorus for softening water. If water is hard and phosphorus content is low (6.0% or less), you may need to use more detergent or use a brand with a higher phosphorus content (8.7% or higher).

Add detergent to the dispenser immediately before starting. Detergent exposed to moisture over a period of time may become caked and ineffective. An open box of detergent should stay fresh for about one month. Keep detergent container tightly closed in a cool, dry place. Store detergent where children can't reach container.

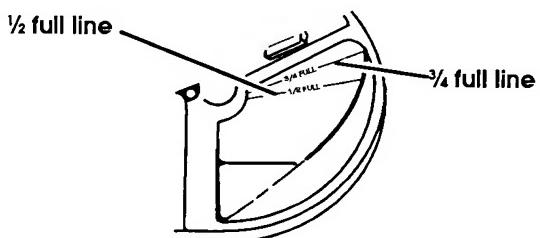
How much detergent to use

There are ingredients in detergent to help protect your dishware. The amount of detergent needed depends on the amount of food soil on the dishware and the water hardness.

- **ALWAYS** use at least one tablespoon of automatic dishwashing detergent in Main Wash compartment.
- If you have hard water, you will have to use more detergent than if you have soft water.
- Excessive amounts of detergent combined with soft water may cause etching of glass.
- Do not use more than one tablespoon of detergent if you have rinsed or pre-washed the dishware.

IMPORTANT: Contact your local water utility, area water softening company or state university extension agent to determine your water hardness.

Water Hardness	Amount of Detergent
Soft Water 0-4 grains per gallon	Fill each dispenser to the $\frac{1}{2}$ full line
Medium Hard Water 4-8 grains per gallon	Fill each dispenser to the $\frac{3}{4}$ full line
Hard Water 8-12 grains per gallon	Fill each dispenser completely full



The detergent dispenser

The detergent dispenser has two sections with covers and one section without a cover.

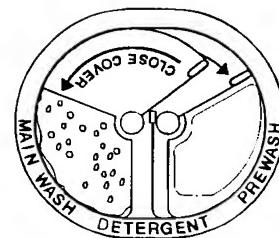
1. Fill the dispenser section(s) with the proper amount of detergent. See page 12.

The uncovered section is used for the Soak & Scrub Pots/Pans cycle only.

2. Close the section cover(s).

Single fill:

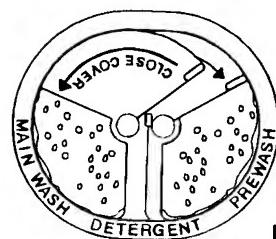
Single fill is used for the Light/China cycle and Quick/Glass cycle when dishware is lightly soiled.



Single fill

Double fill:

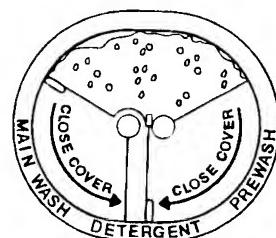
Double fill is used for the Normal cycle and may also be used for the Light/China cycle.



Double fill

Triple fill:

Triple fill is used for the Soak & Scrub Pots/Pans cycle only.



Triple fill

Using the rinse agent dispenser

Keep the rinse agent dispenser filled with a liquid rinse agent. A small amount of rinse agent is automatically released into the rinse water during the final rinse of each cycle.

IMPORTANT: A rinse agent prevents water from forming droplets and drying as spots or streaks. A rinse agent improves drying by allowing water to drain off dishware during the final rinse.

Check the dispenser

For best drying results, check the dispenser periodically to see if refilling is needed. You do not have to wait until the dispenser is empty to refill it, but do not overfill it.

The rinse agent dispenser will hold 7 fluid ounces of rinse agent. Under normal conditions, this will last about 3 months.

To fill dispenser

1. Make sure the dishwasher door is fully open.
2. Turn fill cap counterclockwise to remove.
3. Do not fill past the smallest opening in the lower part of the dispenser.
If you overfill, excess rinse agent may come out. Overfilling may cause oversudsing.
4. Clean up any spilled rinse agent with a damp cloth.
5. Replace the fill cap and keep cap tightly closed.

IMPORTANT: Because your dishwasher is designed to use a liquid rinse agent, you do not need to use a solid or bar-type rinse agent.

Keep rinse agent
dispenser filled for
best drying results



Sure-Temp™ water heating

The first wash portion of the Soak & Scrub Pots/Pans and Normal cycles are delayed until the water is heated to approximately 140°F (60°C). This means that you may turn your home water heater down to provide a minimum of 120°F (49°C) incoming water to the dishwasher. Keeping your water heater at 120°F (49°C) rather than 140°F (60°C) will save you approximately 10% of your total household water heating energy.

Time needed to heat water

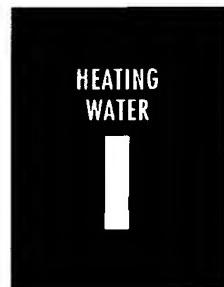
If the water temperature inside the dishwasher is 120°F (49°C), it will take about 7 minutes to heat the first water fill to 140°F (60°C). Higher incoming water temperatures will reduce the water heating time.

What happens during water heating

The HEATING WATER light will glow while water is heated in the dishwasher, prior to the wash portion of the selected cycle. If the Sani-Rinse option is selected, the HEATING WATER light will come on again while water is heated, just prior to the last rinse of the cycle.

No water circulation takes place during the water heating periods. The wash and/or rinse portion of the cycle is delayed until the water reaches the correct temperature.

IMPORTANT: For best dishwashing results, water should be at least 120°F (49°C) as it enters the dishwasher.



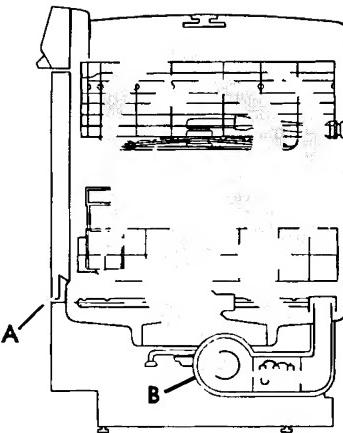
To check water temperature

1. Test water at the faucet closest to your dishwasher.
2. Run water into a glass set in the sink for at least one minute, allowing water to overflow.
3. Place a candy or meat thermometer in the glass. Read the thermometer at the maximum setting.
4. If the water temperature is too low, raise the setting on your water heater, if possible.

Sanitized flo-through drying

A pause period of approximately four minutes at the start of the drying period allows water to drain from dishware. After this pause, a separate motor, fan and heating element outside of the wash chamber circulates sanitized, electrically heated air throughout the wash chamber.

Occasionally, steam vapor may be noticed coming through the door-wide evaporation strip (A) at the bottom of the door. This is normal. The vapor is the result of moisture in the dishwasher being moved by the Sanitized Flo-Thro Drying System (B). Vapor may be more noticeable in an air conditioned home. The vapor is not harmful and usually dissipates very quickly.



Quiet operating tips

To avoid thumping and clattering noises during operation:

- Make sure lightweight load items are secured in the rack.
- Make sure pot lids and handles, pizza pans, cookie sheets, etc. do not touch interior walls or interfere with the spray arm rotation.
- Load dishware so they **do not** touch one another.

IMPORTANT: Keep sink drain plugs inserted during dishwasher operation to prevent noise transfer through drains.

Normal sounds you may hear while dishwasher is running:

- The fill valve opening or closing and the sound of water entering the dishwasher.
- Water being pumped out during drain portion of a cycle.
- Detergent cup opening.
- Timer clicking as it advances.
- Pump motor starting.
- Items being ground up in the hard food disposer.

Energy saving tips

- Do not rinse dishware before loading.
- Use the Energy Saver Dry option whenever possible.
- Turn the temperature setting on your home water heater down to provide a minimum of 120°F (49°C) incoming water to the dishwasher.
- Run the dishwasher only with a full load.
- Use only the cycle and options that you need.
- Run the dishwasher at night during summer to avoid daytime heat load.

Special tips on dishwasher use

Most tableware, cookware and silverware can be safely washed in your KitchenAid® dishwasher. If you have any doubts about a particular piece of dishware, check with the manufacturer to see if it is dishwasher safe.

REMEMBER: It is the user's responsibility to determine if dishware should be washed in a dishwasher.

Material	Dishwasher Safe?	Exceptions/Special Information	Material	Dishwasher Safe?	Exceptions/Special Information
Aluminum	Yes	High water temperature and detergents may affect finish of anodized aluminum.	Disposable Plastics	No	Cannot withstand high water temperatures and detergents.
Cast Iron	No	Seasoning will be removed, and iron will rust.	Plastics	Yes	Always check manufacturers' recommendations before washing. Plastics vary in their capacity to withstand high water temperatures and detergents.
China/Stoneware	Yes	Always check manufacturers' recommendations before washing. Antique, hand-painted or over-the-glaze patterns may fade. Gold leaf may discolor.	Stainless Steel	Yes	Run a Rinse Hold cycle if not washing immediately. Prolonged contact with foods containing salt, vinegar, milk products or fruit juice could damage finish.
Crystal	Yes	Always check manufacturers' recommendations before washing. Some types of leaded crystal may etch with repeated washings.	Sterling Silver or Silverplate	Yes	Run a Rinse Hold cycle if not washing immediately. Prolonged contact with food containing salt, acid or sulfide (eggs, mayonnaise and seafood) could damage finish.
Gold	No	Gold-colored flatware will discolor.	Tin	No	May rust.
Glass	Yes	Milk glass will yellow with repeated dishwasher washing.	Wooden Ware	No	Always check manufacturers' recommendations before washing. Untreated wood may warp, crack or lose its finish.
Hollow-Handle Knives	No	Handles of some knives are attached to the blade with adhesives which may loosen if dishwasher washed.	Bottles and Cans	No	Labels attached with glue can loosen during a wash. Loose labels can clog spray arms or the pump and will reduce washing performance. Remove labels before putting items in dishwasher or wash by hand.
Pewter	No	High water temperatures and detergent may discolor or pit finish.			

Caring For Your Dishwasher

In This Section

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Seasonal storage	19
Drain air gap	19

Your new dishwasher is designed to give you many years of dependable service. However, there are a few things you are expected to do in order to maintain your dishwasher properly. This section will tell you how to clean and care for your dishwasher.

Sure-Scrub™ wash system

The Sure-Scrub Wash System in your dishwasher provides excellent cleaning results. The wash water is continuously filtered by a triple filtration and soil collector system to prevent food particles from redepositing on clean dishware. The filter continuously filters the wash water and traps the food particles that have been removed from the dishware on the outside of the filter.

These trapped food particles are removed from the ultrafine filter by four water jets

underneath the 4-Way Hydro Sweep Wash Arm.

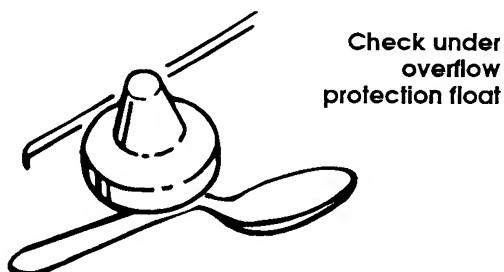
The coarse strainer prevents bones, pits and other large objects from entering the pump system. Occasionally check the strainer for such items that may have mistakenly entered the dishwasher.

IMPORTANT: A small amount of water always remains in the sump (under the ultrafine filter) to keep the seal moist.

Overflow protection float

The Overflow Protection Float in the front left corner of the dishwasher tank prevents the dishwasher from overflowing. The float must be in place for the dishwasher to operate.

Check under the float for object that may prevent the float from moving up or down.



General cleaning

Interior

The porcelain enamel interior of your dishwasher will seldom need cleaning. However, if mineral deposits from hard water accumulate, clean the interior with a mild scouring powder or follow the suggestions indicated in the "Removing Spots and Film" section on page 25.

DO NOT use any type of cleanser which may cause foaming or sudsing.

IMPORTANT: Run the dishwasher through a normal cycle with detergent after cleaning the interior.

Exterior

The control panel may be cleaned with a damp cloth, then dried. NEVER use detergents or abrasive or powdered cleansers which may mar the finish.

The enamel or wood fronts and sides may be cleaned with a soft cloth and a mild, nonabrasive soap and water solution. NEVER use paper towels for cleaning. Paper towels are abrasive and may scratch your dishwasher's finish. Always dry with a soft cloth.

Seasonal storage

The winter season:

!CAUTION

Property Damage Hazard

To protect against possible rupture of fill valve, be sure water lines leading to, as well as in, the dishwasher are well protected against freezing.

Failure to do so could result in property damage. Ruptures of this kind are not covered by the warranty.

To safeguard your KitchenAid dishwasher when it is exposed to freezing temperatures in a seasonal dwelling, refer to the Installation Instructions and have a qualified person do the following:

1. Close and latch the door.
2. Turn off electrical power supply to the dishwasher.

Drain air gap

Some state or local plumbing codes require the addition of a drain air gap between a built-in dishwasher and the home drain system. This device protects your dishwasher against water backing up into it when a drain clogs. The drain air gap is usually located on top of the sink or countertop near the dishwasher. To order drain air gap accessory part number 300096, contact your local KitchenAid dealer or call 1-800-422-1230.

IMPORTANT: This external plumbing device is not part of your KitchenAid Dishwasher.

To clean the drain air gap:

Clean the drain air gap periodically to ensure proper drainage of your dishwasher. Follow drain air gap cleaning instructions provided by the manufacturer. With most types, just lift off the chrome cover, unscrew the plastic cap, and then check for any buildup of soil. Clean, if necessary.

Check the air gap anytime your dishwasher isn't draining well

IMPORTANT: The warranty provided with your dishwasher does not cover service costs directly associated with the cleaning or repair of the external drain air gap.

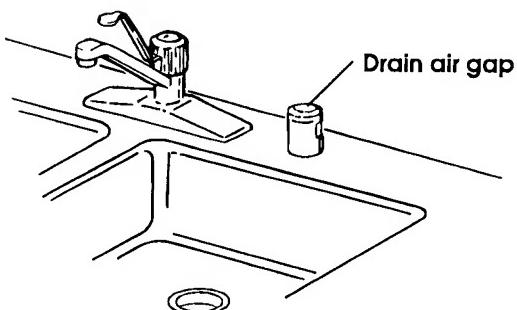
3. Shut off water supply. Place pan under fill valve, and disconnect fill valve at both inlet and outlet sides. Drain water into pan.
4. Place a pan under the drain valve outlet, and disconnect the flexible tubing at the drain valve. Drain machine water into pan. Leave fill and drain valve disconnected.

To restore service, reconnect the fill valve and the flexible tubing at the drain valve. Turn on the electrical power supply and the water supply. Close and latch the door. Select the Quick/Glass cycle and let the machine complete the cycle. Check connections to make sure they are water tight and do not leak.

The summer season:

Two simple steps will safeguard your KitchenAid dishwasher during an idle summer:

1. Turn off the water supply.
2. Turn off electrical power supply to the dishwasher.



Changing Front Panels

In This Section

Page	Page
Changing the front panels 20	Optional front panels 22

Your new KitchenAid dishwasher comes with a stainless steel trim kit and reversible front panels. You may choose from either black/white (front and back of one panel) or almond/harvest wheat (front and back of the second panel). Model KUDS230Y includes both panels. Model KUDA230Y has one panel matching the control console color. See "Optional front panels" on page 22 if you want to use custom front panels.

Changing the front panels

If you want to change the color of the panels, follow one of the options below:

OPTION A may be used if your dishwasher front protrudes several inches from the cabinets.

OPTION B may be used if your dishwasher front is flush with the cabinets.

OPTION A

Use these directions when the dishwasher front protrudes several inches from the cabinets.

Upper Panel:

1. Disconnect electrical power supply.
2. Pull door open and on either side of the dishwasher door, remove the three screws (A) from the trim (B). Remove the loosened piece of trim.
3. Slide the color panel out. Handle the panel carefully to avoid scratching or bending the panel. Turn the panel to the desired color. Place the color panel in position; then push the filler panel in behind the color panel.
4. Replace the trim (B) and the three screws (A).

Lower Panel:

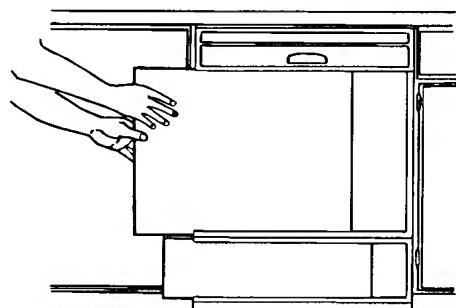
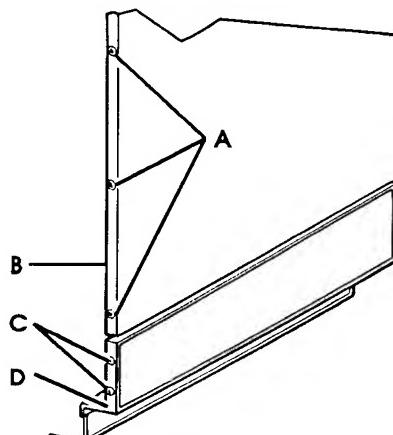
1. Remove the two screws (C) on either side of the lower panel. Remove the loosened piece of trim (D).
2. Slide the color panel out. Handle the panel carefully to avoid scratching or bending the panel. Turn the panel to the desired color. Place the color panel in position; then push the filler panel in behind the color panel.
3. Replace the trim (D) and the two screws (C).
4. Reconnect electrical power supply.

WARNING

Electrical Shock Hazard

Disconnect electrical power supply to dishwasher before changing panels.

Failure to do so could result in electrical shock or personal injury.

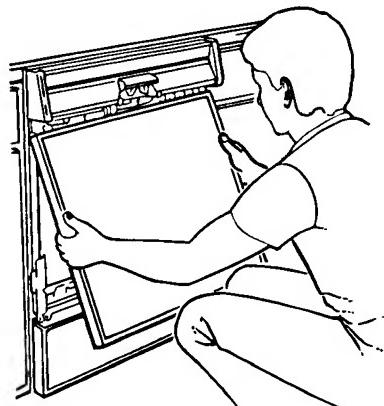
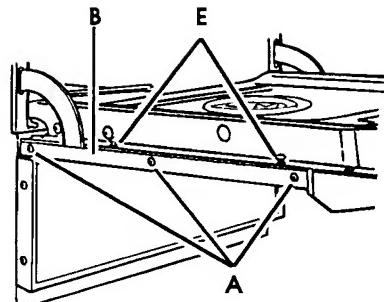


OPTION B

Use these directions when the dishwasher front is flush with the cabinets.

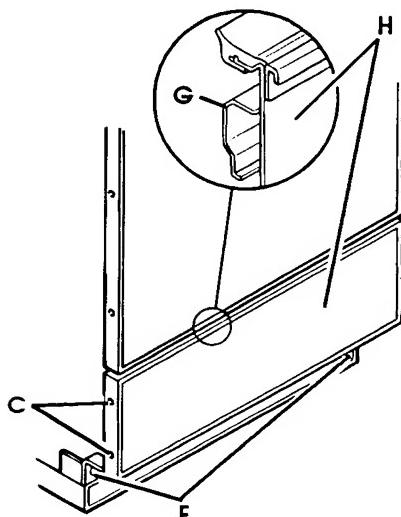
Upper Panel:

1. Disconnect electrical power supply.
2. Pull door open. Remove the two screws (E) on each side of the dishwasher door which secure the upper panel assembly.
3. Close door while holding upper panel assembly in place. Pull out lower edge of assembly until top edge drops down.
4. Place panel assembly on a smooth, flat surface. Remove three screws (A) from either side of panel to remove the trim strip (B).
5. Slide the color panel out. Handle the panel carefully to avoid scratching or bending the panel. Turn the panel to the desired color. Place the color panel in position; then push the filler panel in behind the color panel.
6. Replace the trim strip and the three screws.
7. With hands placed at sides of panel, slide the top edge of the panel up into position under the control panel (see illustration).
8. Hold the panel in place and open the door.
9. Hold panel assembly in position with one hand. Replace the two screws (E) on each side of the dishwasher door which secure the panel assembly.



Lower Panel:

1. Remove two screws (F) located under panel assembly .
2. With hands placed under ends of panel assembly (H), turn out and lift assembly off of support bracket (G).
3. Place panel assembly on a smooth, flat surface and remove the two screws (C) from either side of the trim. Remove the loosened piece of trim.
4. Slide the color panel out. Handle the panel carefully to avoid scratching or bending the panel. Turn the panel to the desired color. Place the color panel in position; then push the filler panel in behind the color panel.
5. Replace the trim and screws (C).
6. Taking the assembled lower panel (H), insert the top of the assembly into the dishwasher until the seal is seated properly on top of the support bracket (G).
7. Replace the screws (F).
8. Check that upper and lower panels are secure.
9. Reconnect electrical power supply.



Optional front panels

1. Wood and decorative panels

The stainless front trim will accommodate a custom wood front or a decorative panel insert, $\frac{1}{4}$ inch thick, weighing no more than 10 pounds. Any wood panel or decorative panel weighing over 4 pounds requires heavy-duty door springs.

To order heavy-duty springs, contact your local KitchenAid dealer or call 1-800-422-1230.

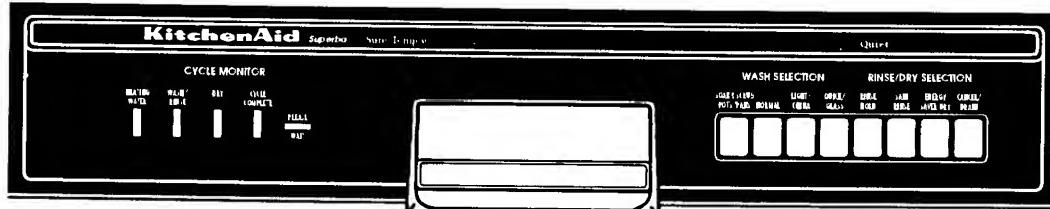
For more information on installing a custom wood front, refer to the Dishwasher Installation Instructions. If you have misplaced these instructions, please call 1-800-422-1230 or write to:

Consumer Assistance Center
KitchenAid
P.O. Box 558
St. Joseph, MI 49085-0558

2. Solid colors

If the color panels provided with your dishwasher do not match your kitchen decor, optional panels are available from your KitchenAid dealer in a variety of decorator colors.

3. Optional upper control panel trim



(Model KUDA230Y only)

The upper control panel trim is also available in black or brushed chrome to match your kitchen decor. This may be ordered from your KitchenAid dealer as a service accessory kit, or by calling 1-800-422-1230.

!CAUTION

Product Damage

- Heavy duty door springs must be used with custom panels that weigh more than 4 pounds.
- Heavy duty door springs kit is attached to the front channel located behind the toe panel.
- Maximum door panel weight is 10 pounds.

Failure to follow these instructions could cause product damage.

Common Dishwashing Problems

In This Section

Solution chart	Page 23	Page 25
Removing spots and film		

Solution chart

A convenient checklist for handling minor performance problems. Go over this list before calling for service. If you are unable to solve your dishwasher's problem, turn to page 27 for service information.

Problem	Cause	Solution
Food Soil Left on Dishware	Slowdown of wash arm due to high suds	Never use soap or laundry detergents. Use recommended dishwasher detergents only.
	Improper loading	Follow loading instructions on pages 8-11.
	Low water pressure due to insufficient fill	Home water pressure should be 20 to 120 psi for proper dishwasher fill. A booster pump on the water supply may be necessary if pressure is too low.
	Use of incorrect, too little or ineffective detergent	Use recommended dishwasher detergents only. Follow recommendations on page 12 for amounts; never use less than one tablespoon per load. Detergent must be fresh to be effective. Always store detergent in a cool, dry area, preferably in an airtight container.
	Detergent cakes in dispenser	Use fresh detergent only. Do not allow detergent to sit for several hours in a wet dispenser. Check dispenser for caked detergent. Clean dispenser when caked detergent is present.
	Water temperature is too low	Turn home water heater up to ensure water entering dishwasher is 120°F (49°C) minimum. See recommended procedure "Sure-Temp Water Heating" page 15.
Spotting and Filming	Hard water or high mineral content in water	Conditioning the final rinse water with a liquid rinse agent helps eliminate spotting and filming. Keep the dispenser full with a rinse agent at all times.
	Water temperature is too low	Turn home water heater up to ensure water entering dishwasher is 120°F (49°C) minimum. See recommended procedure "Sure-Temp Water Heating" on page 15.
	Use of incorrect detergents	Use recommended dishwasher detergents only.
	Incorrect amount of detergent	Follow recommendations on pages 12-13 for amount. Heavy soil and/or hard water generally require extra detergent.
	Use of ineffective detergents	Detergent should be fresh. Store in a cool, dry place, preferably in an airtight container. Discard lumpy detergent.
	Insufficient fill caused by low water pressure	Home water pressure should be 20 to 120 psi for proper dishwasher fill. A booster pump on the water supply may be necessary if pressure is too low.

Problem	Cause	Solution
Cycle Takes Extremely Long Time	Water temperature is too low	Turn home water heater up to ensure water entering dishwasher is 120°F (49°C) minimum. See recommended procedure "Sure-Temp Water Heating" on page 15.
Dishware Does Not Dry Completely	Dishware does not drain properly	Dishware must have proper water drainage. Do not overload. Follow instructions for loading dishwasher on pages 8-11. Use a liquid rinse agent to speed draining.
	Plastics	Some plastics, due to material, may need to be towel dried.
Silica Film or Etching (Silica Film is a White Iridescent Deposit; Etching is a Cloudy Film)	A water chemical reaction with certain types of glassware. Usually caused by some combination of soft or softened water, alkaline washing solutions, insufficient rinsing, overloading the dishwasher, and heat of drying.	It may not be possible to prevent problem, except by hand washing. To retard this process, use a minimum amount of detergent but not less than one tablespoon per load. Use a liquid rinse agent and underload the dishwasher to allow thorough rinsing. Silica film and etching are permanent and cannot be removed. Use the Energy Saver Dry option.
Black or Gray Marks on Dishware	Aluminum markings	Aluminum pieces should be loaded so that they will not rub against dishware during washing. Throw-away aluminum items should not be dishwasher washed because they may break down and cause marking. Aluminum markings can be removed by using a mild abrasive cleanser.
Brown Stains on Dishware and Dishwasher Interior	High iron content in water supply	Remove by washing dishware (after food soil has been removed) with 1 teaspoon to 1 tablespoon of citric acid crystals added to Main Wash compartment of detergent dispenser. Do not use detergent. Follow with a Light/China cycle with detergent. If treatment is needed more often than every other month, the installation of an iron removal unit is recommended.
White Spots on Cookware with Non-Stick Finish	Seasoning removed by dishwasher detergents	Re-season cookware after dishwasher washing.
Odor in the Dishwasher	Dishware only washed every two to three days	Run a Rinse Hold cycle at least once or twice a day until a full load is accumulated.
Chipping of Dishware	Improper loading	Load dishware and glasses so that they are stable and do not strike together from washing action. (Note: Some types of china and glassware are too delicate for automatic dishwashing and should be hand washed; for example: antiques, feather-edged crystal and similar types.) Moving racks in and out smoothly will also minimize chipping.

Removing spots and film

Keep the rinse agent dispenser filled with a liquid rinse agent. A rinse agent prevents water from forming droplets and drying as spots or streaks.

To remove spots and film on dishware and glasses, or hard water film on the interior of the dishwasher, you may use white vinegar with the following procedure:

1. Load clean dishware and glasses in dishwasher in regular manner. Do not load silverware or other metals in the dishwasher.

2. Close and latch door.
3. Select the Light/China cycle. Do not use detergent.
4. Allow dishwasher to run through the first wash. When washer has filled for main wash portion of cycle, unlatch and open door.
5. Add 2 cups of household vinegar.
6. Close and latch door.
7. Re-select Light/China cycle with Energy Saver Dry option.

If You Need Assistance Or Service

If you ever have questions or comments about your appliance, you can call our toll-free Consumer Assistance Center telephone number, 1-800-422-1230, 24 hours a day, seven days a week.

This section is designed to help you save the cost of a service call. First we outline possible problems, their causes and their solutions. However, you may still need assistance or service. When calling our Consumer Assistance Center for help or when calling for service, you will need to provide a complete description of the problem, your appliance's complete model and serial numbers and the purchase or installation date. (See page 2.) This information is needed to respond to your request properly.

1. Before calling for service ...

If your appliance should fail to operate, review the following list before calling your dealer. You could save the cost of a service call.

PROBLEM	CHECK IF	WHAT TO DO
Dishwasher will not run, or stops during a cycle	HEATING WATER light is on.	This is normal. Wash or rinse water is being heated. Dishwasher will start when water reaches the proper temperature. See page 6.
	The door is open or unlatched.	Close the door and securely latch it.
	A cycle is selected.	Select the correct cycle. See pages 5-7.
	Water supply is turned off.	Turn on water supply.

PROBLEM	CHECK IF	WHAT TO DO
Dishwasher will not run, or stops during a cycle (continued)	A household fuse is blown or circuit breaker is tripped. Dishwasher is connected in a live circuit with the proper voltage. An electrical overload has stopped the motor.	Change the fuse or reset the circuit breaker. Connect the dishwasher in a live circuit with the proper voltage. If the motor has stopped because of an overload, it will automatically reset itself within a few minutes. If the motor does not start, call for service.
Dishwasher seems to run too long	The Sani-Rinse option is being used. Household water heater temperature is low.	The dishwasher will pause while heating the rinse water. This is normal. The dishwasher will run longer while heating the water. This is normal for lower incoming water temperatures. See pages 8 and 15.
Dishwasher won't fill	The overflow protector stuck in "up" position.	Check for and remove any object under overflow protector float. Float should move up and down freely. Press down on float to release. See page 18.
Dishware and glasses not clean		See "Food Soil Left on Dishware" section of "Solution Chart" on page 23.
White film on dishware		See "Spotting and Filming" section of "Solution Chart" on page 23.
Steam from door vent	Dishwasher is in drying portion of cycle.	This is normal. See "Sanitized flow-through drying" on page 16.
Water remains in the dishwasher	The cycle has completed. The drain air gap is clogged.	Wait for the cycle to finish draining. A small amount of remaining water is normal. Follow the manufacturer's cleaning instructions. See page 19.
Grinding, grating, crunching or buzzing sounds are heard	A hard food object has entered the pump.	The sound will stop when the object is ground up by the pump. If it does not stop after the next cycle, call for service.
Detergent remains in the covered detergent cup	Detergent is lumpy. The cycle has completed.	Use fresh detergent. See page 12. Wait for the cycle to finish.

PROBLEM	CHECK IF	WHAT TO DO
White residue appears on front of access panel	Too much detergent is used.	See page 12 for recommended amounts of detergent.
	Liquid detergent is used.	Some liquid detergents develop excess foam and build up on exterior of access panel. Try a different brand to reduce foaming and eliminate build-up.
Dishware is not as dry as you expected	The rinse agent dispenser is empty.	Fill the rinse agent dispenser. Using a rinse agent greatly improves drying. See page 14.
	Energy Saver Dry option is used.	Turn off Energy Saver Dry option.

2. If the problem is not due to one of the items in Step 1:

- Call KitchenAid Consumer Assistance Center toll-free:

1-800-422-1230

and talk with one of our trained consultants. The consultant can instruct you how to obtain satisfactory operation from your appliance or, if service is necessary, recommend a qualified service company in your area.

- If you prefer, write to:

Consumer Assistance Center
KitchenAid
P.O. Box 558
St. Joseph, MI 49085-0558

Please include a daytime phone number in your correspondence.

3. If you need service:

- Call your dealer or the repair service he recommends.
- All service should be handled locally by the dealer from whom you purchased the unit or an authorized KitchenAid servicer.
- If you are unable to obtain the name of a local authorized KitchenAid servicer, call our Consumer Assistance Center telephone number (see Step 2).

4. If you are not satisfied with the action taken:

- Contact the Major Appliance Consumer Action Panel (MACAP). MACAP is a group of consumer experts which voices consumer views at the highest levels of the major appliance industry.
 - Contact MACAP only when the dealer, authorized servicer, and KitchenAid have failed to resolve your problem.
- Major Appliance Consumer Action Panel
20 North Wacker Drive
Chicago, IL 60606
- MACAP will in turn inform us of your action.

Dishwasher Warranty

LENGTH OF WARRANTY:	KITCHENAID WILL PAY FOR:	KITCHENAID WILL NOT PAY FOR:
ONE YEAR FULL WARRANTY FROM DATE OF INSTALLATION.	Replacement parts and repair labor to correct defects in materials or workmanship. Service must be provided by an authorized KitchenAid servicing outlet.	A. Service calls to: <ol style="list-style-type: none"> 1. Correct the installation of the dishwasher. 2. Instruct you how to use the dishwasher. 3. Replace house fuses or correct house wiring. 4. Correct house plumbing. B. Repairs when dishwasher is used in other than normal home use.
FIVE YEAR LIMITED WARRANTY ONE YEAR FULL PLUS SECOND THROUGH FIFTH YEAR LIMITED FROM DATE OF INSTALLATION.	Replacement parts for the upper or lower dishware rack if they rust due to defective materials or workmanship.	C. Damage resulting from accident, alteration, misuse, abuse, improper installation or installation not in accordance with local electrical and plumbing codes.
FIVE YEAR LIMITED WARRANTY ONE YEAR FULL PLUS SECOND THROUGH FIFTH YEAR LIMITED FROM DATE OF INSTALLATION.	Replacement parts for the one-half horsepower motor if defective in materials or workmanship.	D. Any labor costs during the limited warranty.
TWENTY-FIVE YEAR FULL WARRANTY FROM DATE OF INSTALLATION.	Replacement parts and repair labor for the TriDura™ Porcelain-on-steel tank or inner door if the tank or inner door develops water leak caused by rust through as a result of defective materials or workmanship.	E. Replacement parts or repair labor costs for units operated outside the United States.

KITCHENAID DOES NOT ASSUME ANY RESPONSIBILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

If you need service, first see the "Assistance or Service" section of this book. After checking "Assistance or Service," additional help can be found by calling our Consumer Assistance Center telephone number, 1-800-422-1230, from anywhere in the U.S.A.

KitchenAid
St. Joseph, Michigan, U.S.A. 49085



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